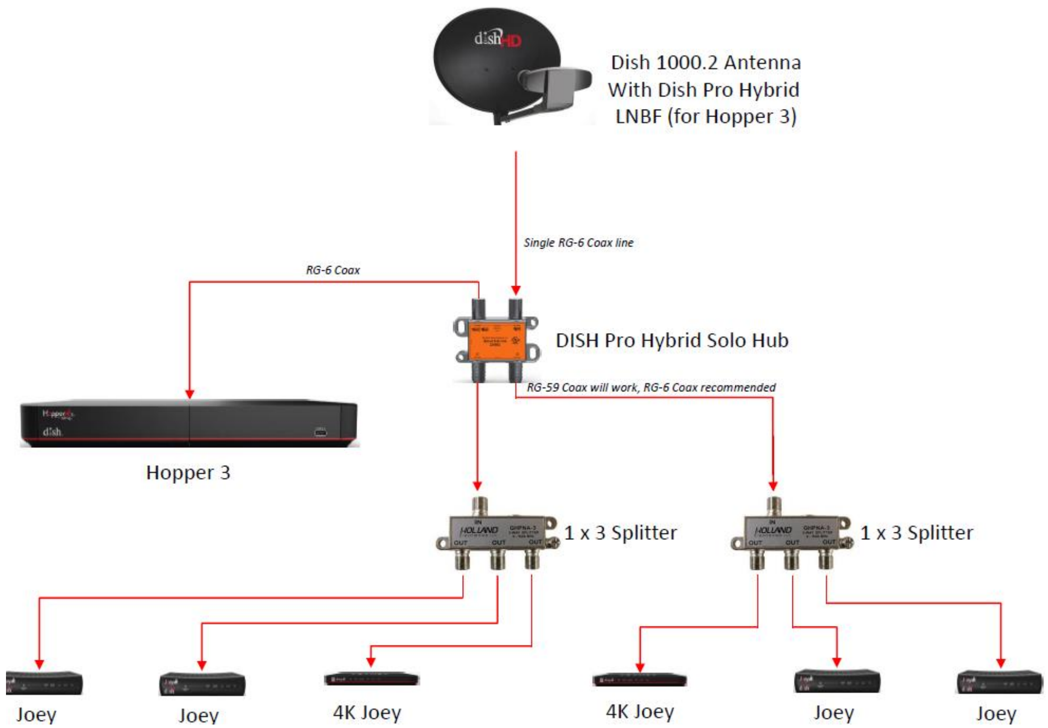
EXHIBIT B

U.S. Patent No. 7,295,518 ("the '518 Patent") Exemplary Infringement Chart

The Accused MoCA Instrumentalities are instrumentalities that DISH deploys to provide a whole-premises DVR network over an on-premises coaxial cable network, with DISH "Hopper" and "Joey" nodes operating with data connections compliant with MoCA 1.0, 1.1, and/or 2.0. The Accused MoCA Instrumentalities include the DISH Hopper, DISH Hopper with Sling, DISH Hopper DUO, DISH Joey, DISH Joey 2, and DISH Super Joey, DISH Hopper 3, DISH 4K Joey, and DISH Joey 3, and substantially similar instrumentalities. DISH literally and/or under the doctrine of equivalents infringes the claims of the '518 Patent under 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing the Accused MoCA Instrumentalities.

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the '518 Patent
1. A data communication network comprising:	The Accused Services are provided using at least the Accused MoCA Instrumentalities including the DISH Hopper, DISH Hopper with Sling, DISH Hopper DUO, DISH Joey, DISH Joey 2, DISH Super Joey, DISH Hopper 3, DISH 4K Joey, and DISH Joey 3, and devices that operate in a similar manner. The Accused MoCA Instrumentalities operate to form a data communication network over an on-premises coaxial cable network as described below. The DISH full-premises DVR network constitutes a data communication network as claimed. The DISH full-premises DVR network is a MoCA network created between at least one Hopper DVR and one or more Joey receivers using the on-premises coaxial cable network. This MoCA network is compliant with MoCA 1.0, 1.1, and/or 2.0. "The MoCA system network model creates a coax network which supports communications between a convergence layer in one MoCA node to the corresponding convergence layer in another MoCA node." (MoCA 1.0, Section 1. *See also* MoCA 1.1, Section 1.1; MoCA 2.0, Section 1.2.2)

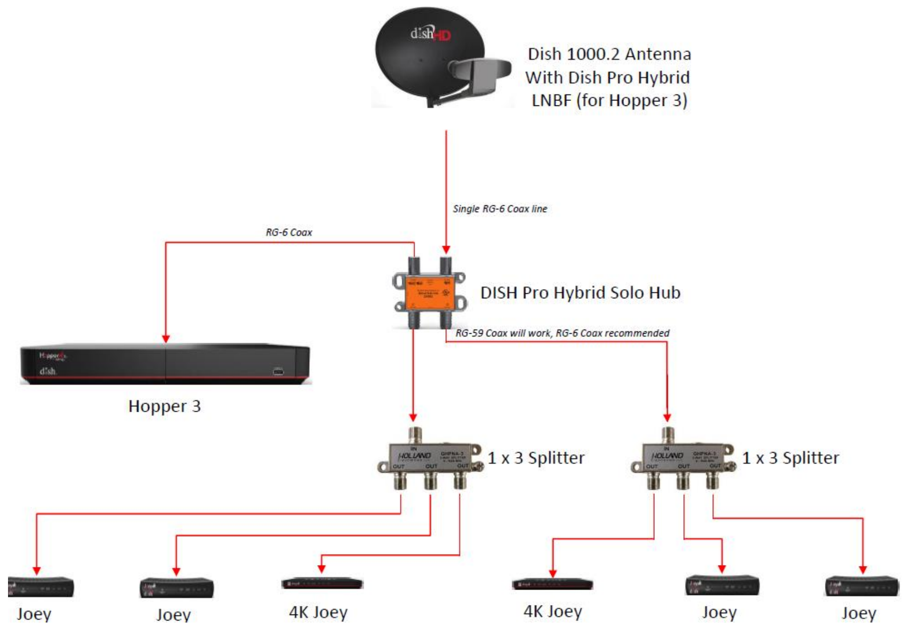
U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	“The MoCA Network transmits high speed multimedia data over the in-home coaxial cable infrastructure.” (MoCA 1.0, Section 2. *See also* MoCA 1.1, Section 2; MoCA 2.0, Section 5) DISH utilizes the MoCA standard to provide an on-premises DVR network over an on-premises coaxial cable network as described below:  DISH PRO HYBRID SOLO HUB: This Solo Hub is a home video network device that combines multi-orbital coaxial cable satellite feeds from a DISH 1000.2

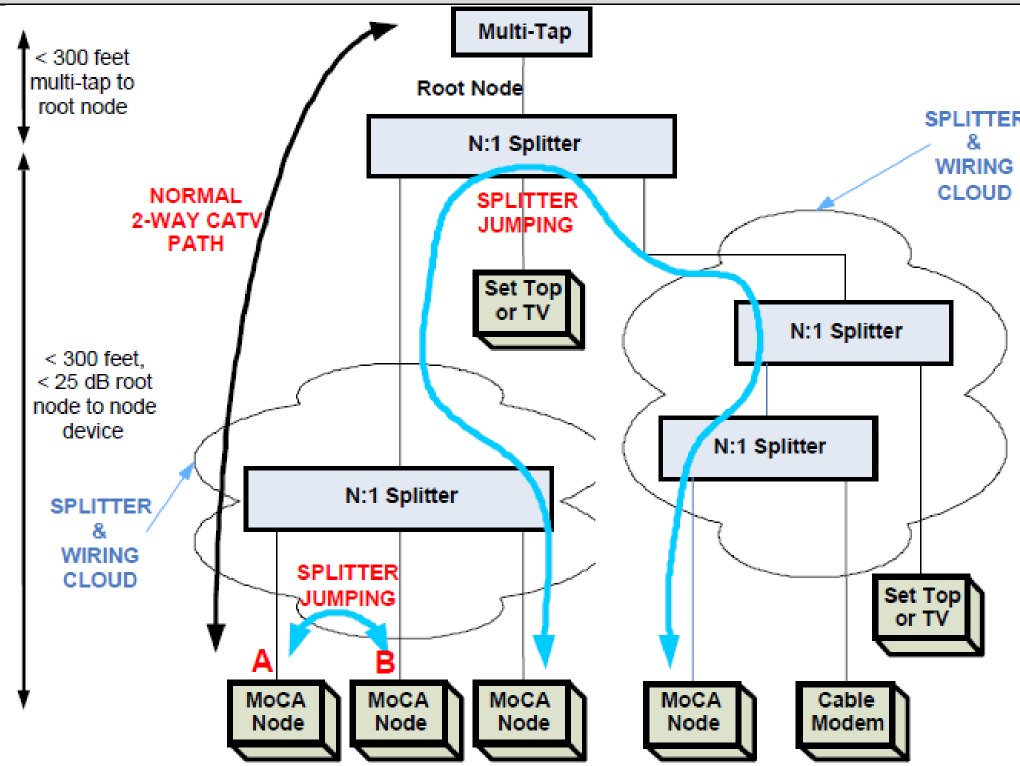
U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	antenna or switch into a single-cable coaxial satellite feed to support MoCA networking for the Hopper 3 DVRs (host). The client ports are intended to feed up to 6 Joey client receivers (clients). The Solo Hub creates a MoCA video network for Hopper DVRs and Joeys. Rated 50 MHz to 3 GHz. SPLITTERS: 1 GHz common splitters can be used to feed Joey client receivers. HOPPER 3: The Hopper 3 is the revolutionary whole-home DVR from DISH that includes 16 satellite tuners and a 2TB hard drive. JOEY: The Joey is the MoCA thin-client receiver that networks with the Hopper for viewing on additional TVs. 4K JOEY: The 4K Joey is an option for installation on additional 4K TVs. DISH PRO HYBRID 42 SWITCH: This switch allows two Hopper 3 DVRs to be installed using a single DISH traditional 1000.2 antenna. Each Hopper 3 forms its own MoCA video network with connected Joeys. The switch comes with a 110VAC power supply unit.

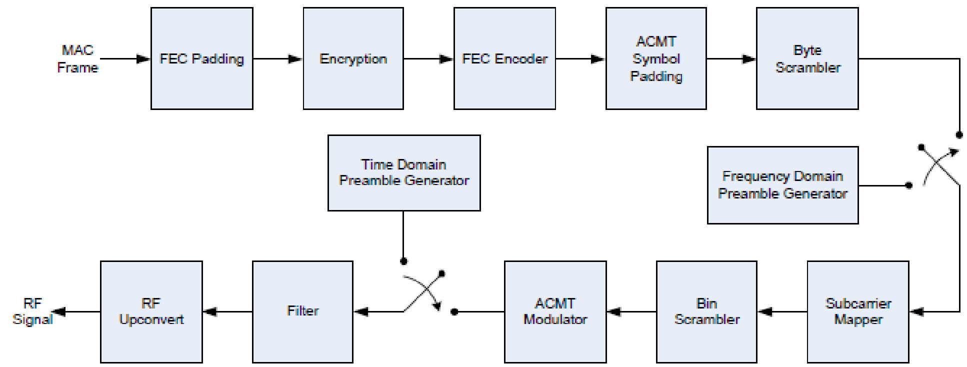
U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	Your new Hopper® 3 receiver is a Whole-Home HD DVR that offers full digital video recording functionality, including pausing live TV, to every TV in your house that is part of your Whole-Home DVR system. The Hopper 3 receiver is the hub for all things entertainment. It is an HD DVR that provides the equivalent of 16 tuners, allowing you to record multiple HD channels at once and at any time and play them back in any room in your home. Using the PrimeTime Anytime® feature, you can record up to six HD channels simultaneously (with your local ABC, CBS, FOX and NBC channels provided in HD, which may not be available in all markets). It is one HD DVR that works independently on as many as four different TVs at the same time, so everyone can be in different room watching their favorite TV programming. Joey® receivers (Joey®, SuperJoey®, Wireless Joey®, 4K Joey™) connect to other TVs in your home and link to the Hopper 3 system, creating a Whole-Home DVR network. It supports all of the features of the Hopper 3 (with the exception of Picture-In-Picture) and offers an identical user interface as the Hopper 3. You can connect a Joey receiver to a high-definition or standard-definition TV.

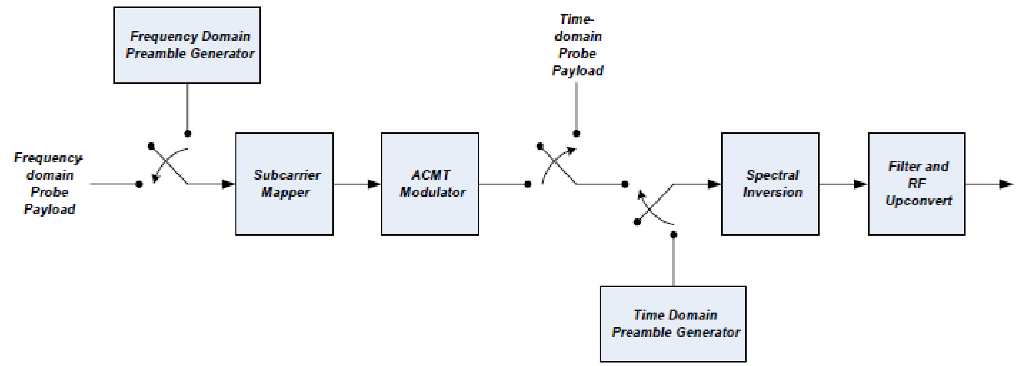
U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the '518 Patent
	CONNECTING THE JOEY RECEIVER(S) This section describes how to connect the receiver's **HOME VIDEO NETWORK** connection to one or more cable-ready remote TV(s) located in other room(s) away from the Hopper. You can use these instructions to connect TVs in your home to see live and recorded programming from the Hopper. This installation uses your in-home coaxial cable system. If your home does not have built-in cabling, it will be necessary to run these cables from the Hopper HD DVR to each Joey Receiver conected to a remote TV. Due to the potential complexity of this installation, you should have this professionally installed. Call the DISH Customer Service Center at 1-800-333-DISH (3474) for more information. If you need another remote control, be sure to order the replacement remote control kit for Hopper and Joey that uses UHF-2G signals. Call your DISH retailer, or visit www.mydish.com online, select Upgrades, then Products, and click on Remote & Accessories. 1 Connect the **HOME VIDEO NETWORK** output on the back of the Hopper HD DVR to an existing wall cable outlet using a coaxial cable. 2 Connect the Joey Receiver(s) in other room(s) to existing wall cable outlet(s) using coaxial cable(s). 3 Connect the Joey Receiver(s) to an audio/video input of the remote TV in each room. • If it is a high-definition TV or monitor and an HDMI connection is available on the remote TV, use a single HDMI cable from the output on the back of the Joey Receiver to provide high-quality audio and HD/SD video. See page 94. • If it is a standard-definition TV or an HDMI connection is not available on the remote TV, use composite (yellow) video and stereo audio cables from the outputs on the back of the Joey Receiver. See page 95. 4 Turn on every Joey Receiver and remote TV connected to the in-home cabling system. If you have not already done so, you may need to pair a remote control to each Joey. 5 Follow the on-screen prompts or included instructions for linking each Joey Receiver to your Hopper HD DVR. (The Hopper is the host for DISH Whole-Home DVR services.) 6 Confirm that you see a picture from your Joey Receiver(s) on your remote TV(s). • If your picture looks good, then you are finished with this procedure. • If your TVs do not display a picture or if the picture is not as clear as you would like it to be, repeat the steps to confirm all the connections. Coaxial connections should be hand-tightened.
at least two network devices, each network	The Accused MoCA Instrumentalities operate to form a data communication

U.S. Patent No. 7,295,518	**The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent**
device comprising a multi-carrier modulator for modulating data, an up converter for translating the modulated data to an RF carrier frequency, a down converter for translating an RF signal, and a multi-carrier demodulator for demodulating the translated RF signal to produce data; and	network with at least two network devices, each network device comprising a multi-carrier modulator for modulating data, an up converter for translating the modulated data to an RF carrier frequency, a down converter for translating an RF signal, and a multi-carrier demodulator for demodulating the translated RF signal to produce data as described below. For example, by virtue of their compliance with MoCA, the Accused MoCA Instrumentalities include circuitry and/or associated software modules constituting a multi-carrier modulator for modulating data, an up converter for translating the modulated data to an RF carrier frequency, a down converter for translating an RF signal, and a multi-carrier demodulator for demodulating the translated RF signal to produce data.

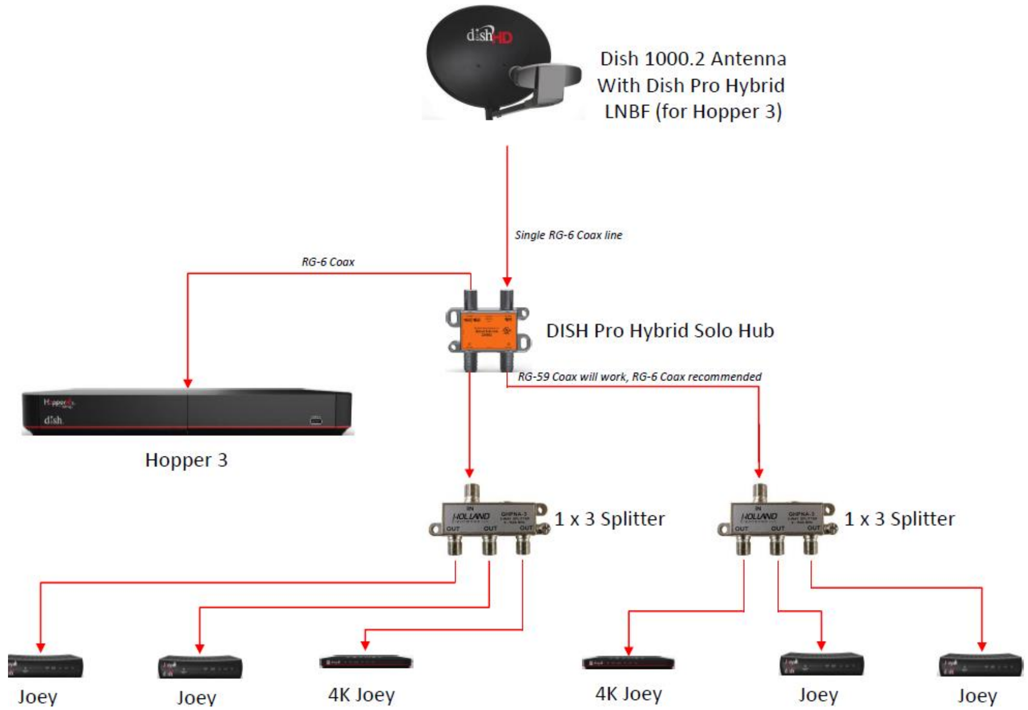
U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	 “The MoCA system network model creates a coax network which supports communications between a convergence layer in one MoCA node to the corresponding convergence layer in another MoCA node.” (MoCA 1.0, Section 1. *See also* MoCA 1.1, Section 1.1; MoCA 2.0, Section 1.2.2)

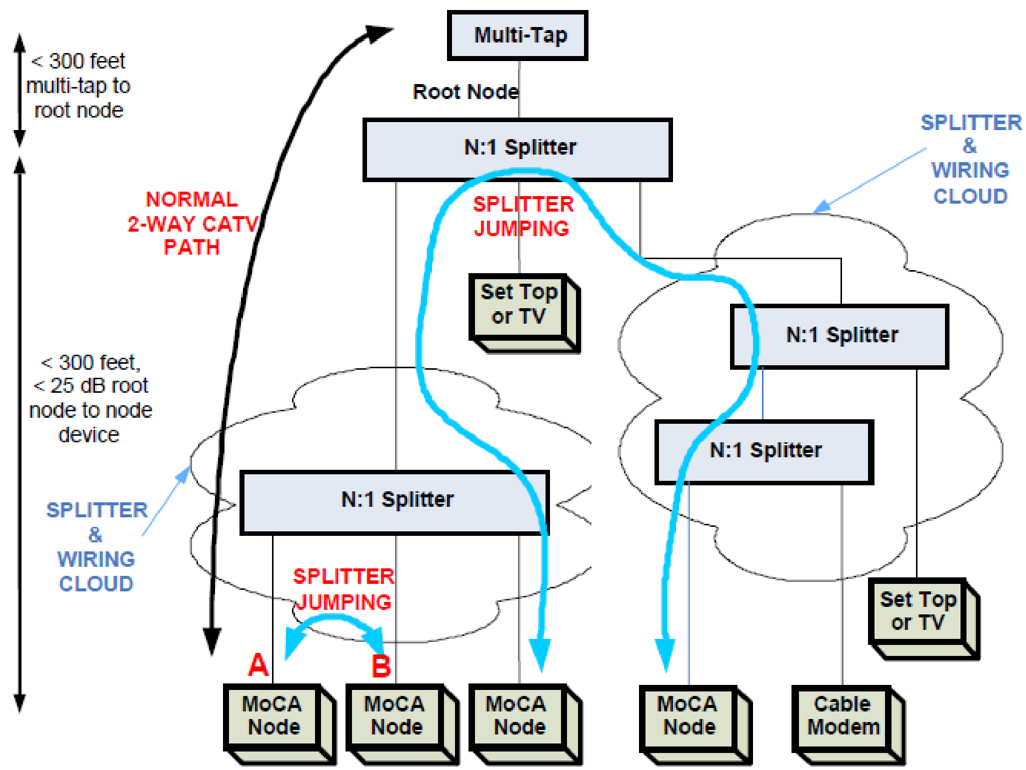
U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the '518 Patent
	 Figure 2-1. A Typical In-home Cable Network (MoCA 1.0, Figure 2-1. *See also* MoCA 1.1, Figure 2-1; MoCA 2.0, Figure 1-1) "For frequency-domain probes, the probe payload is inserted before the subcarrier mapper and undergoes ACMT modulation. For time-domain probes, the probe payload is inserted after the ACMT modulator. This is illustrated in the next figure. As in the case of PHY data packets, the time-domain and frequency-domain

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the '518 Patent
	portions of the PHY preamble enter the transmission processing chain at different points." (MoCA 1.0, Section 4.2.2.1. *See also* MoCA 1.1, Section 4.2.2.1; MoCA 2.0, Sections 14.3.8, 14.3.10)  **Figure 4-2. PHY Data Packet Transmission Processing** (MoCA 1.0, Figure 4-2. *See also* MoCA 1.1, Figure 4-2, MoCA 2.0, Figure 14-2)

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the '518 Patent
	 **Figure 4-4. PHY Probe Transmission Processing** (MoCA 1.0, Figure 4-4. *See also* MoCA 1.1, Figure 4-4, MoCA 2.0, Figure 14-4) "Adaptive Constellation Multi-tone (ACMT) – A multi-tone modulation scheme where constellation density is automatically adapted to the channel characteristic." (MoCA 1.0, Section 1.2. *See also* MoCA 1.1, Section 1.2, MoCA 2.0, Section 3) "ACMT uses multicarrier transmission, much like OFDM." (MoCA 1.0, Section 4.3.6. *See also* MoCA 1.1, Section 4.3.6; MoCA 2.0, Section 5.2) "The PHY packet consists of a PHY preamble immediately followed by a PHY payload field as shown in Figure 4-1. The PHY preamble provides the receiver a reference signal that the receiver may use to acquire the packet, calibrate its algorithms and eventually, to decode the PHY payload." (MoCA 1.1, Section 4.2. *See also* MoCA 1.1, Section 4.2; MoCA 2.0, Section 14.1).

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	On informed belief, the receiver has a down converter for translating an RF signal and a multi-carrier demodulator for demodulating the translated RF signal to produce data.
cable wiring comprising a splitter with a common port and a plurality of tap ports, and a plurality of segments of coaxial cable connecting between the splitter tap ports and the network devices;	The Accused MoCA Instrumentalities form a data communication network using cable wiring comprising a splitter with a common port and a plurality of tap ports, and a plurality of segments of coaxial cable connecting between the splitter tap ports and the network devices as described below. For example, a DISH full-premises DVR network is shown in the image below. As shown in the example image, the DISH full-premises DVR network includes cable wiring comprising a splitter with a common port and a plurality of tap ports, and a plurality of segments of coaxial cable connecting between the splitter tap ports and the network devices.

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	 “Typical in-home coaxial networks are configured as a branching tree topology with the point of demarcation being at the point of entry, typically on the side of the house, and outlets distributed throughout the house. The point of entry is typically connected to the first splitter in the home through a coax cable. In order to get MSO services, the point of entry must be connected to a multi-tap in the MSO’s coax distribution plant. In this document, the point of connection to the first splitter is called the root node. The MoCA devices inside the home communicate with each other by having their signals traverse across one or more

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the '518 Patent
	splitters. When the signal traverses between two outputs of a single splitter, this is referred to as 'splitter jumping'. Splitter jumping is always necessary when the signal must traverse between outlets in the home." (MoCA 1.0, Section 2.1.1. *See also* MoCA 1.1, Section 2.2.1; MoCA 2.0, Section 1.2.2)  **Figure 2-1. A Typical In-home Cable Network** (MoCA 1.0, Figure 2-1. *See also* MoCA 1.1, Figure 2-1; MoCA 2.0, Figure 1-1)

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the '518 Patent
whereby network devices communicate with each other through the cable wiring using multi-carrier signaling;	The Accused MoCA Instrumentalities communicate with each other through the cable wiring using multi-carrier signaling as described below. For example, by virtue of their compliance with MoCA, the Accused MoCA Instrumentalities communicate with each other through the cable wiring using multi-carrier signaling. "The MoCA physical layer (PHY) utilizes a modulation technique named Adaptive Constellation Multi-tone (ACMT). ACMT is a variation of orthogonal frequency division multiplexing (OFDM) where knowledge of the channel is used to pre-equalize all signals using variable bitloading on all subcarriers." (MoCA 1.0, Section 2.2. *See also* MoCA 1.1, Section 2.2; MoCA 2.0, Section 5) "ACMT uses multicarrier transmission, much like OFDM." (MoCA 1.0, Section 4.3.6. *See also* MoCA 1.1, Section 4.3.6; MoCA 2.0, Section 5.2) "All communication over the medium between two or more MoCA devices shall be performed via scheduled exchanges of Physical Layer (PHY) packets." (MoCA 1.0, Section 4.2. *See also* MoCA 1.1, Section 4.2; MoCA 2.0, Section 14.1). "In order to achieve target packet error rates of less than 10^{-5} for large packets (>1500 bytes) with no retransmissions, the MoCA physical layer uses channel pre-equalization (using bit loading) and multi-tone modulation on all links." (MoCA 1.0, Section 2.2. *See also* MoCA 1.1, Section 2.2; MoCA 2.0, Section 5)

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	“PHY data packets carry MAC data and control frames as PHY payload. Figure 4-3 shows an example of how a PHY data packet is constructed from a MAC frame. In this example, the FEC-padded MAC frame is encrypted and encoded into two Reed-Solomon code words, the last code word being shortened to minimize FEC padding. The encoded data is ACMT padded, scrambled and modulated onto the sub-carriers of three ACMT symbols. The ACMT symbols are bin-scrambled and then transformed to the time-domain where a cyclic prefix is added to each ACMT symbol to obtain the PHY data payload. Finally, a preamble is prepended to the PHY data payload and is filtered and upconverted to RF for transmission onto the media. In practice, the number of Reed-Solomon code words and number of ACMT symbols per PHY data packet will vary as a function of the MAC frame size and modulation profile. The processing steps referred to here are specified in Section 4.3.” (MoCA 1.0, Section 4.2.1.2. *See also* MoCA 1.1, Section 4.2.1.2, MoCA 2.0, Section 14.2) “The MoCA system network model creates a coax network which supports communications between a convergence layer in one MoCA node to the corresponding convergence layer in another MoCA node.” (MoCA 1.0, Section 1. *See also* MoCA 1.1, Section 1.1; MoCA 2.0, Section 1.2.2)
wherein network devices transmit probe messages through the cable wiring and analyze received probe message signals to determine channel characteristics and bit loading is selected based on the determined channel characteristics.	The network devices transmit probe messages through the cable wiring and analyze received probe message signals to determine channel characteristics and bit loading is selected based on the determined channel characteristics as described below. For example, by virtue of their compliance with MoCA, the Accused MoCA Instrumentalities transmit probe messages through the cable wiring and analyze received probe message signals to determine channel characteristics and bit loading

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	is selected based on the determined channel characteristics. “While it is physically a shared medium, the logical network model is a fully meshed collection of point-to-point links, each with its own unique channel characteristics and channel capacity. MoCA devices use optimized PHY parameters between every point to point link. Each set of optimized PHY parameters is called a PHY Profile. Because each link is unique, it is critical that all nodes know the source and the destination for every transmission.” (MoCA 1.0, Section 2.1.2. *See also* MoCA 1.1, Section 2.1.2; MoCA 2.0, Section 1.2.2) “The topology of the in-home coax typically results in a multi-path delay profile. Because the echoes can be stronger and/or weaker than the original signal, depending on the output port-to-output port isolation of the jumped splitter, the channel is said to have either pre- or post-echoes, respectively. A zero decibel echo, i.e., equal power to the main path, leads to deep nulls in the frequency domain spectrum. In order to achieve target packet error rates of less than 10-5 for large packets (>1500 bytes) with no retransmissions, the MoCA physical layer uses channel pre-equalization (using bit loading) and multi-tone modulation on all links.” (MoCA 1.0, Section 2.2. *See also* MoCA 1.1, Section 2.2; MoCA 2.0, Section 5.2) “Probe – A signal transmitted by a MoCA node and received by the same or another node for improving or maintaining PHY performance of inter-node links.” (MoCA 1.0, Section 1.2. *See also* MoCA 1.1, Section 1.2, MoCA 2.0, Section 3). “The MoCA system network model creates a coax network which supports

U.S. Patent No. 7,295,518	The Accused MoCA Instrumentalities Form a Network That Practices at Least Claim 1 of the ’518 Patent
	communications between a convergence layer in one MoCA node to the corresponding convergence layer in another MoCA node.” (MoCA 1.0, Section 1. *See also* MoCA 1.1, Section 1.1; MoCA 2.0, Section 1.2.2) “ACMT is a variation of orthogonal frequency division multiplexing (OFDM) where knowledge of the channel is used to pre-equalize all signals using variable bitloading on all subcarriers. The term used to describe the bitloading of the ACMT subcarriers is “modulation profile” and the process of creating a modulation profile between a node pair is called “modulation profiling”. During periodic modulation profiling, probes are sent between all nodes and analyzed. After probe analysis, modulation profiles are chosen to optimize individual link throughput while maintaining a low packet error rate.” (MoCA 1.0, Section 2.2. *See also* MoCA 1.1, Section 2.2; MoCA 2.0, Section 5) “A variety of physical layer frequency-domain and time-domain probes are used to create modulation profiles, optimize performance, and allow for various calibration mechanisms. Type I Modulation Profile Probes are frequency domain probes used to determine modulation profiles of the channel between any two nodes. Type II Probes are frequency domain probes consisting of two tones that may be used to fine tune performance. A Type III Echo Profile Probe may be used to determine the impulse response of the channel. This information can be used to optimize various physical layer parameters. In addition to the above probes, this specification provides opportunities for various unique Loopback Transmissions which may be useful for RF calibration, among other things.” (MoCA 1.0, Section 2.2. *See also* MoCA 1.1, Section 2.2; MoCA 2.0, Section 5.2)